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Employment histories among patients with borderline personality disorder symptomatology

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Abstract. Whereas past research has characterized the course of symptoms in borderline personality disorder, functionality with regard to employment is less well-known. In this study, we examined 324 internal medicine outpatients with regard to employment history and borderline personality disorder symptomatology, using two self-report measures. In comparison with participants who did not exceed the cut-off scores on either measure of borderline personality disorder, those who did had a greater number of jobs since age 18, were employed less overall since age 18, were more likely to be paid "under the table", and were more likely to be fired from a job. In the subsample with borderline personality disorder symptomatology, there were few employment differences between those with versus without past histories of psychiatric hospitalization. Findings suggest that individuals with borderline personality symptomatology do not fare as well with employment as their non-borderline peers.

Keywords: Borderline personality, disability, employment, outcome, Self-Harm Inventory, work

1. Introduction

Borderline personality disorder (BPD) is a dramatic personality dysfunction that is characterized by chronic self-harm behavior and ongoing self-regulation difficulties. According to a number of investigators, the symptoms of BPD tend to remit or lessen over time. For example, Stone indicated that patients with BPD exhibited a fair-to-guarded prognosis [1]. Paris opined that, while personality disorders in general cause significant psychosocial dysfunction over the course of adulthood, BPD tends to remit with age [2]. Upon reviewing 15-year outcomes in BPD, Karaklic and Bungener concluded that global functioning improved substantially over time, ultimately falling within the range of mild impairment [3]. Zanarini et al. found that nearly 75% of patients with BPD experienced symptom remission [4]. In addition, Zanarini et al. reported that a good vocational record was one of the predictors for an earlier time to symptom remission over a six-year period [5]. However, while various BPD symptoms appear to generally remit over time, do individuals with this disorder demonstrate functional work histories in relationship to their nonBPD peers? Several studies have previously examined employment outcome in BPD.

1.1. Employment studies from the 1980s

In a four-to-seven year follow-up study of former inpatients, Pope et al. compared patients with BPD to

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patients with schizophrenia, schizoaffective disorder, and bipolar disorder [6]. In terms of "best occupational or academic function" at follow-up, patients with BPD (rating of 2.2) performed better than schizophrenic patients (rating of 1.6), but not as well as schizoaffective or bipolar patients (both ratings of 3.7).

In a 15-year follow-up study of patients initially hospitalized at Chestnut Lodge, McGlashan compared 81 patients with BPD to patients with schizophrenia and unipolar affective disorder [7]. Compared to the other two patient groups, patients with BPD at follow-up worked more, and reported more work complexity and higher competency scores.

Modestin and Villiger investigated the outcomes of 18 patients with BPD who were initially hospitalized and then re-examined in follow-up at 4.6 years [8]. In comparison with 17 patients with other personality disorders, there were no between-group differences with regard to working less than 20 hours per week or being on disability. At follow-up, 50% of patients with BPD were working less than 20 hours per week and 22% were on disability.

1.2. Employment studies from the 1990s

In a two-to-five year follow-up study from Norway, Mehlum et al. compared 26 patients with BPD to various other types of patients who were initially treated in a day-treatment program in terms of employment status and ability to support self at follow-up [9]. In this study, 56.0% of patients with BPD were employed whereas only 38.5% were self-supporting at follow-up. In comparison to 15 patients without personality disorder (73.3% employed, 60.0% self-supporting), patients with BPD did not occupationally fare as well.

In a three-year follow-up study, Najavits and Gunderson examined work functioning using the Social Adaptation Scale in eight patients with BPD who were previous inpatients [10]. Compared with assessments at one year, there was no statistically significant group change at three years. In other words, work functioning remained unchanged.

In the only investigation to date of a non-clinical sample, Trull et al. examined college students in a two-year follow-up study [11]. Investigators examined academic markers, which in many ways correspond to employment markers. Compared to the 30 participants without BPD, the 35 participants with BPD evidenced at follow-up a lower grade-point average (26.33 versus 24.66), greater mean number of semesters on probation (0.63 versus 1.17), and higher percentage of enrollment ineligibility (0% versus 20%).

1.3. Employment studies from the 2000s

In a 27-year follow-up study of 64 Canadian patients with BPD who were initially hospitalized, Paris and Zweig-Frank assessed work status using the Social Adjustment Scale [12]. Compared to community norms, the patient cohort's mean score on the work subscale was lower. In addition, 20% of the patients were on long-term welfare support.

In a five-year follow-up study, Stevenson, Meares, and D'Angelo examined 30 Australian patients with BPD who were initially treated with a one-year course of psychotherapy [13]. Examining time off from work, from baseline (entry into treatment) to follow-up, the patients experienced a significant decrease over assessment points. In a 17-plus year follow-up study from Japan of 19 patients with BPD who were initially hospitalized, Yoshida et al. found that 54.2% of patients were employed [14]. In a 10-year follow-up study of 249 patients with BPD who were initially hospitalized, Zanarini et al. found that at baseline, 40.7% of participants were on Social Security Disability whereas at follow-up, 44.2% were supported through this type of government subsidy [15].

Finally, in a study in which researchers developed a specialized year-long treatment program to specifically facilitate return-to-work or school, Comtois et al. examined the one-year follow-up of 30 patients with BPD in terms of employment/school status [16]. At baseline, the percentages for employed/in-school and employed at least 20 hours per week were 10% and 3%, respectively, and at follow-up, 50% and 37%, respectively.

1.4. Summary of employment studies

Given that a number of these studies compared patients with BPD to patients with other types of psychopathology, it is difficult to interpret findings from a normative perspective. However, several studies provide some general insight into overall work functioning, indicating that at follow-up, approximately 45% of patients with BPD remain unemployed [9, 14], and of those who are employed, only a portion are self-supporting [9]. In addition, 20–45% of patients are on disability at the time of follow-up [8, 12, 15]. Overall, these meager data suggest that patients with BPD are less employed than the general population.

Note, however, that these studies demonstrate a number of potential limitations. First, sample sizes are generally small. Second, the employment variables for some measures are interpretive and somewhat subjective (i.e., the Social Adjustment Scale). Third, when a comparison group is present, the majority consist of other psychiatrically ill patients. Fourth, most of these samples consist of patients who were initially hospitalized in a psychiatric facility, suggesting a high level of personality-disordered illness at the outset (are they representative of the larger population of individuals with BPD?). Fifth, a number of studies explored only one or two employment variables. Finally, only the study by Trull et al. reported on a non-treatment-seeking sample [11]; treatment-seeking individuals may exhibit different characteristics than non-treatment-seeking samples. Therefore, in the present study, we examined in a consecutive sample of internal medicine outpatients (i.e., a sample that is generally not actively seeking mental healthcare) a number of lifetime employment variables as a function of BPD status according to two self-report measures for this Axis II disorder. We hypothesized that individuals with BPD symptomatology would evidence less functional employment histories compared to individuals without these symptoms.

2. Method

2.1. Participants

Participants were males and females, ages 18 years or older, who were being seen at an internal medicine outpatient clinic for non-emergent medical care. The outpatient clinic is staffed by both faculty and residents in the Department of Internal Medicine, and is located in a mid-sized, mid-western city. However, the majority of patients recruited for this study were seen by resident providers. The recruiter informally assessed and excluded individuals with compromising medical (e.g., pain), intellectual (e.g., mental retardation), cognitive (e.g., dementia), or psychiatric symptoms (e.g., psychotic) *of a severity* that would preclude the candidate's ability to successfully complete a survey ($n = 62$).

At the outset, 480 individuals were approached and 369 agreed to participate, for a participation rate of 76.9%. Of these, 324 completed the relevant study measures. Of the 324 respondents included in our analyses, 223 (68.8%) were female, 99 (30.6%) were male, and two (0.06%) did not indicate their sex. Participants ranged in age from 18 to 90 years ($M = 49.85$, $SD = 15.69$), with only 10.5% of respondents younger than age 30 and only 15.4% older than age 65. Most participants were White/Caucasian (86.6%), followed by African-American (8.6%); 4.8% indicated some other ethnicity/race. With regard to educational attainment, all but 7.2% had at least graduated high school whereas 30.7% had earned a four-year college degree or higher.

2.2. Procedure

During clinic hours, one of the authors (JSL) positioned himself in the lobby of the internal medicine outpatient clinic, approached consecutive incoming patients, and informally assessed exclusion criteria. With potential candidates, the recruiter reviewed the focus of the project and then invited each to participate. Each participant was asked to complete a six-page survey, which took about 10 minutes. Participants were asked to place completed surveys into sealed envelopes and then into a collection box in the lobby.

The survey consisted of three sections. The first section was a demographic query, in which we asked participants about their sex, age, racial/ethnic origin, and educational level. Additionally, respondents were asked, "Have you ever been hospitalized in a psychiatric hospital?," with a yes/no response option.

The second section of the survey explored past employment history. Specifically, participants were asked: (a) Since age 18, how many full-time different jobs have you had in your lifetime?; (b) Since age 18, what percent of the time have you been employed, part- or full-time?; (c) Have you ever had any jobs that you were paid "under the table" for?; and (d) Have you ever been fired from a job? Queries (a) and (b) were followed by blank spaces whereas queries (c) and (d) were followed by yes/no response options. For query (d), "yes" responses were further examined: "If yes, why were you fired?," which was followed by 10 provided options (e.g., late for work, missed shifts/days, used unacceptable language), including "Other".

The third section of the survey contained two self-report measures for BPD symptomatology – the BPD scale of the Personality Diagnostic Questionnaire-4 (PDQ-4) [17] and the Self-Harm Inventory (SHI) [18]. We elected two measures for BPD to discern for any major differences with other study variables, as the PDQ-4 and SHI are based upon distinctly different constructs (i.e., the PDQ-4 explores more psychological criteria whereas the SHI strictly examines behavioral history).

The BPD scale of the PDQ-4 is a nine item, true/false, self-report measure that consists of the diagnostic criteria for BPD that are listed in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (*DSM-IV*) [19]. A score of five or higher is highly suggestive of BPD. Previous versions of the PDQ have been found to be useful screening tools for BPD in both clinical [20, 21] and nonclinical samples [22], including the use of the freestanding BPD scale [23].

The second BPD measure, the SHI, is a 22-item, yes/no, self-report inventory that explores participants' lifetime histories of self-harm behavior [18]. Each item in the inventory is preceded by the statement, "Have you ever intentionally, or on purpose, . . . " Individual items include, "overdosed, cut yourself on purpose, burned yourself on purpose," and "hit yourself". Each endorsement increases the possibility of pathology. The SHI total score is the summation of "yes" responses. SHI total scores of five or greater are highly suggestive of the diagnosis of BPD. Indeed, in comparison with the Diagnostic Interview for Borderlines [24], a benchmark measure for the diagnosis of BPD in research settings, the SHI demonstrated an overall accuracy in diagnosis of 84% [18].

This project was reviewed and exempted by the institutional review boards of both the community hospital as well as the university. Completion of the survey was assumed to function as implied consent, which was explicitly clarified on the cover page of the booklet.

3. Results

We begin the presentation of results with descriptive data regarding employment histories and scores on the measures of BPD. We then present the results of analyses focused on the relationships between employment history and scores on the measure of BPD, both in terms of correlational relationships and comparisons between respondents who exceeded clinical cut-off scores for BPD with respondents who did not. Last, among respondents who exceeded the cut-off score for BPD, we compare employment histories between respondents with and without a history of psychiatric hospitalization.

3.1. Employment histories

The number of full-time jobs held during adulthood ranged from 0 to 50 ($M = 5.32$, $SD = 5.73$), but only 10 (3.1%) respondents reported never having held a full-time job as an adult. The estimated proportion of adulthood during which the respondent held any employment ranged from 0 to 100% ($M = 77.13\%$, $SD = 28.99\%$), with only 5 respondents (1.5%) indicating having been employed 0% of the time. Although 70 (21.6%) respondents indicated having been employed 100% of the time during adulthood, the most common response ($n = 87$, 26.9%) was to leave the item blank (missing data). Of the 324 respondents, 97 (29.9%) indicated having had a job in which he or she was paid "under the table", and 128 (39.5%) indicated having been fired from a job. The number of jobs these respondents had been fired from ranged from one to ten, although the large majority (89.1%) had been fired from only one (64.1%) or two (25.0%) jobs. Of the ten possible choices for why the respondent was fired, only five were endorsed by at least 10% each (listed in order of popularity): other reason not listed (38.3%), missed shifts/days (25.0%), couldn't do the work (20.3%), late for work (13.3%), and didn't get along with the boss (11.7%).

3.2. BPD symptomatology findings

Scores on the measures of BPD ranged from 0 to 9 for the PDQ-4 ($M = 2.16$, $SD = 2.25$) and 0 to 19 for the SHI ($M = 2.79$, $SD = 3.71$). Of the 324 respondents, 55 (17.0%) exceeded the corresponding cut-off score for BPD on the PDQ-4 and 76 (23.5%) exceeded the clinical cut-off score on the SHI. Fewer respondents ($n = 42$, 13.0%) exceeded the clinical cut-off score on both measures of BPD, and 89 (27.5%) exceeded the cut-off score on at least one of the measures.

3.3. Relationships between employment variables and BPD status

The total number of different full-time jobs held during adulthood was modestly and positively correlated with scores on both the PDQ-4 ($r = 0.19$, $p < 0.01$) and the SHI ($r = 0.30$, $p < 0.001$). In other words, respondents who reported having held more jobs tended to score relatively higher on the measures of BPD. In addition, the estimated percentage of adulthood during which the respondent was employed was weakly and negatively correlated with scores on the PDQ-4 ($r = -0.14$, $p < 0.05$) and SHI ($r = -0.16$, $p < 0.05$). In other words, respondents who reported having been employed less consistently in adulthood tended to score relatively higher on the measures of BPD. Table 1 presents comparisons on the employment-history

Table 1
Comparisons as a function of whether respondents exceeded the clinical cut-off score on at least one of the measures of BPD

Employment variable	NonBPD ($n = 235$)	BPD ($n = 89$)
Number of different full-time jobs since age 18	$M = 4.66$**	$M = 7.07$
	($SD = 5.19$)	($SD = 6.69$)
Estimated percentage of time employed since age 18	$M = 79.7\%$*	$M = 70.2\%$
	($SD = 28.1\%$)	($SD = 30.6\%$)
Ever held a job where you were paid "under the table"	23.0%**	48.9%
Ever fired from a job?	32.5%**	58.4%
If fired, how many times?	$M = 1.34$**	$M = 2.31$
	($SD = 0.76$)	($SD = 2.18$)
If fired, ever because of:		
Missed shifts/days	15.8%*	38.5%
Couldn't do the work	19.7%	21.2%
Late for work	9.2%	19.2%
Didn't get along with the boss	14.5%	7.7%

Note: BPD = borderline personality disorder; *$p < 0.05$, **$p < 0.001$ based on Chi-Square analysis for frequencies or One-Way ANOVA for means.

Table 2
Comparisons as a function of whether respondents who exceeded the clinical cut-off score on at least one of the measures of BPD reported a history of psychiatric hospitalization

Employment variable	History of psychiatric hospitalization	
	No ($n = 54$)	Yes ($n = 35$)
Number of different full-time jobs since age 18	$M = 7.37$	$M = 6.60$
	($SD = 7.25$)	($SD = 5.81$)
Estimated percentage of time employed since age 18	$M = 75.0\%$	$M = 63.2\%$
	($SD = 28.2\%$)	($SD = 33.0\%$)
Ever held a job where you were paid "under the table"	48.1%	50.0%
Ever fired from a job?	59.3%	57.1%
If fired, how many times?	$M = 1.75$*	$M = 3.20$
	($SD = 1.30$)	($SD = 2.95$)
If fired, ever because of:		
Missed shifts/days	25.0%*	60.0%
Couldn't do the work	12.5%	35.0%
Late for work	15.6%	25.0%
Didn't get along with the boss	6.3%	10.0%

Note: BPD = borderline personality disorder; *$p < 0.05$ based on Chi-Square analysis for frequencies or One-Way ANOVA for means.

variables as a function of whether the respondent exceeded the clinical cut-off score on at least one of the two measures of BPD.

3.4. Role of past psychiatric hospitalization

Last, we examined respondents in relationship to a history of psychiatric hospitalization. Only 13 (5.5%) of the 235 respondents who did not exceed the clinical cut-off score on at least one of the measures of BPD reported a history of psychiatric hospitalization. In contrast, 35 (39.3%) of the 89 respondents who exceeded the clinical cut-off score on at least one of the measures of BPD did. Comparison of employment histories among respondents who exceeded the clinical cut-off score on at least one of the measures of BPD as a function of history of psychiatric hospitalization is presented in Table 2.

4. Discussion

In this population of primary care patients, we found that the number of different full-time jobs as well as the estimated percentage of time employed since age 18 both demonstrated correlations with each measure of BPD. In addition, participants who were BPD-positive on either measure demonstrated statistically significant differences from nonBPD participants on all of the four employment measures – i.e., the number of different full-time jobs since age 18, estimated percentage of time employed after age 18, being paid "under the table", and being fired from a job – all less favorable in those with BPD symptomatology. These data indicate that, compared with nonBPD participants, BPD participants do not fare as well with regard to employment on a number of employment parameters.

In addition to the preceding findings, we determined that common reasons for firings among participants with BPD symptomatology were being late and missing work. This aspect of our findings may be related to the well-known self-regulatory disturbances experienced by patients with BPD. In this case, the regulation difficulty may be around time management. As a caveat, we do not know the role of alcohol/substance use as a mediating variable.

We also compared participants with BPD symptomatology who did and did not have a history of having been hospitalized in a psychiatric facility to examine the potential significance of past psychiatric hospitalization. We undertook these analyses because the majority of past studies has been undertaken in patients with BPD who were initially hospitalized in a psychiatric facility. We found that there were no between-group differences with regard to the four primary employment variables. In other words, being hospitalized in a

psychiatric facility at some point in the past did not appear to be a moderating variable.

Unfortunately, our inquiry into employment does not address all of the potential areas that might be important in understanding potential links between BPD and employment. For example, do individuals with BPD hold jobs of similar skill/prestige as individuals without this disorder? Do individuals with BPD socially function in the work environment in a comparable manner to individuals without BPD? Are individuals with BPD promoted as rapidly within an organization as those without this challenging Axis II disorder? Only further research will tease out these employment nuances.

In this sample of primary care patients, we found that 27.5% exceeded the cut-off scores for BPD on at least one of two measures. Importantly, self-report measures tend to be over-inclusive (i.e., generate false positives). Therefore, these self-report measures should be viewed as screening tools and not substitutes for clinical diagnosis. Because of this, we use the term, *BPD symptomatology*, rather than BPD alone, in describing the clinical features of this subsample. Importantly, while this percentage appears to be relatively high, the setting may offer a partial explanation. Being largely staffed by resident-providers, the outpatient clinic provides healthcare services to a clinical population in which approximately 50% of patients are supported by government insurance. In a large US population sample, Sareen et al. [25] found that low levels of household income were associated with most lifetime Axis I and II mental disorders.

These data strongly suggest that individuals with BPD will face a number of employment challenges. To date, we are aware of only one treatment approach to improve employment outcomes in BPD [16]. In this study, researchers developed a program that they entitled, "DBT – Accepting the Challenges of Exiting the System". Comtois and colleagues describe this program as exposure-based with contingency management procedures. In practical terms, BPD participants who did not meet educational or employment expectations of staff (i.e., a specified number of hours per week) were given a hiatus from psychotherapy treatment until the established requirement was met for at least one week. From our review, the remainder of the literature is devoid of other approaches to encouraging employment-seeking and job maintenance among individuals with BPD.

This study has a number of potential limitations, including the self-report nature of the data, which is subject to recollection bias; the use of only four employment variables; and a lack of assessment for psychiatric comorbidity (i.e., other variables that might influence findings). However, the sample was consecutive and reasonably large, the response rate was reasonable, we used two measures for the assessment of BPD symptomatology, and we compared those with versus without past psychiatric hospitalizations in the BPD-positive cohort. To conclude, according to our findings, participants in this study with BPD symptomatology evidenced employment shortcomings on all four employment variables, in comparison with nonBPD controls. A history of past psychiatric hospitalization did not appear to influence employment outcomes, either better or worse, among the cohort with BPD symptomatology. These findings suggest that vocational counselors may need to be aware of the employment deficits in patients with BPD symptomatology and address this through specialized programming [16].

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